

EXPLANATION OF CHANGES FOR 401 KAR 10:030
“ANTIDEGRADATION POLICY IMPLEMENTATION METHODOLOGY”
KENTUCKY – NOVEMBER 1, 2009

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REGULATORY HISTORY

The promulgation of Kentucky's antidegradation regulation has a long and storied history beginning in 1979 and continuing to present day. The following is a highlighted chronology.

- 1979 – Kentucky adopts antidegradation policy, 401 KAR 5:029.
- July 12, 1995 – Kentucky first promulgated 401 KAR 5:030, antidegradation policy implementation methodology.
- August 11, 1995 – Regulation submitted to EPA for approval.
- January 28, 1997 – Kentucky submitted additional supporting information to EPA on the pending EPA review of the regulation.
- August 7, 1997 – EPA partially approved and disapproved 401 KAR 5:030. The EPA disapproval was related to the selection criteria for water bodies that would be given Tier II protection.
- July 7, 1998 – EPA published in the Federal Register an advance notice of proposed rulemaking.
- December 8, 1999 – Kentucky promulgated another version of 401 KAR 5:030 in response to the EPA disapproval.
- December 15, 1999 – Regulation submitted to EPA for approval.
- August 30, 2000 – EPA partially approved and disapproved 401 KAR 5:030. Again, the disapproval centered on the Cabinet's selection criteria for water bodies given Tier II protection.
- October 25, 2000, May 1, 2001, and May 24, 2001 – Kentucky submitted additional letters to EPA regarding their partial approval and disapproval.
- May 19, 2001 – Kentucky Waterways Alliance et al¹ sent notice to EPA of their intent to commence a civil action under the citizen suit provision of the CWA, 33 U.S.C. 1365.
- November 14, 2002 – EPA published a notice in the Federal Register with proposed federal antidegradation requirements to take the place of 401 KAR 5:030.
- February 17, 2004 – Kentucky Waterways Alliance renewed 60-day notice of intent with EPA.
- September 8, 2004 – Kentucky promulgated another version of 401 KAR 5:030.
- September 21, 2004 - Kentucky Waterways Alliance filed action against EPA in the U.S. District Court for the Western District of Kentucky.
- September 23, 2004 – Regulation submitted to EPA for approval.
- January 29, 2005 - Kentucky Waterways Alliance filed motion for summary judgment, requesting that the district court order the EPA to promulgate antidegradation regulations for Kentucky.
- April 12, 2005 – EPA approved Kentucky's regulation 401 KAR 5:030.
- May 27, 2005 - Kentucky Waterways Alliance amended their complaint against EPA, to include that EPA's approval of Kentucky's revised antidegradation implementation procedures was arbitrary, capricious, and otherwise contrary to law.

¹ Plaintiffs-Appellants include: Kentucky Waterways Alliance, Sierra Club Cumberland Chapter, Kentuckians for the Commonwealth, and Floyds Fork Environmental Association.

- June 6, 2005 – Kentucky et al² intervened as defendants.
- March 31, 2006 – summary judgment granted to EPA et al by US District Court, appeal followed to US Sixth Circuit Court of Appeals.
- June 2008 – Cabinet files amendments to water quality administrative regulations as part of triennial review.
- September 3, 2008 – US Sixth Circuit Court of Appeals issued final judgment, mandated on October 28, 2008, upholding in part and remanding in part the antidegradation regulations to EPA.
- July 30, 2009 – 401 KAR 10:030 becomes effective following approval by Kentucky legislature.

CURRENT TRIENNIAL REVIEW

The Energy and Environment Cabinet (the Cabinet) re-codified the water quality standards administrative regulations from 401 KAR Chapter 5 to Chapter 10 in June 2008. Amendments to those administrative regulations were also filed in June 2008 as part of the triennial review mandated by the Clean Water Act. The public comment period began July 1, 2008, and closed on July 31, 2008.

In response to comments received, the Cabinet prepared a statement of consideration (SOC) and amended the administrative regulations. Those documents were filed with the Legislative Research Commission (LRC) in September 2008³. The amended regulations were scheduled to be heard on the October 2008 agenda of the Administrative Regulation Review Subcommittee (ARRS)⁴.

However, the Cabinet requested that the regulations be deferred from consideration each month since October 2008 in an effort to resolve the issues surrounding Kentucky's antidegradation requirements in 401 KAR 10:030. Kentucky Revised Statutes 13A.300⁵ and KRS 13A.315⁶ establish that an administrative regulation that has not gone into effect within one year of the date of publication in the Kentucky Administrative Register shall expire. This established a timeline for Cabinet action whereby the regulations had to be effective by no later than October 1, 2009. In order to comply with this timeline, the amended regulations had to be on the ARRS agenda by no later than July 2009.

² Intervening Defendants include: Commonwealth of Kentucky, Kentucky Coal Association, Associated Industries of Kentucky, Kentucky Chamber of Commerce, and Kentucky League of Cities.

³ Within 15 days following the conclusion of the public comment period, the promulgating agency must file the Statement of Consideration and amendments resulting from the comments with the regulations compiler of the LRC. The promulgating agency may extend the filing date by up to 30 days (for a total of 45 days) if an extension is granted by the LRC in accordance with KRS Chapter 13A. If amendments are filed with the Statement of Consideration, the proposed administrative regulations are published again in the Administrative Register of Kentucky.

⁴ The administrative regulation as amended after hearing, or the originally proposed administrative regulation if not amended, is considered by two committees of the LRC: the Administrative Regulation Review Subcommittee and the House and Senate standing committees of appropriate jurisdiction as determined by the LRC. The committees meet monthly.

⁵ <<http://www.lrc.ky.gov/KRS/013A00/300.pdf>>

⁶ <<http://www.lrc.ky.gov/KRS/013A00/315.pdf>>

Accordingly, all of the water quality regulations except for 401 KAR 10:030 were heard before the May 2009 ARRS and approved. These amended regulations were approved by the ARRS Subcommittee on May 12, 2009, and referred to the Interim Joint Committee on Natural Resources and the Environment. They became effective on July 6, 2009.

The amendments to 401 KAR 10:030 were filed with LRC on May 22, 2009, and were heard before ARRS on June 9, 2009, where they were approved. The regulation was then referred to the Interim Joint Committee on Natural Resources and the Environment and became effective on July 30, 2009.

SIXTH CIRCUIT COURT DECISION

The antidegradation implementation regulation was challenged by several environmental groups in the United States District Court for the Western District of Kentucky. *Kentucky Waterways Alliance v. Johnson* 426 F. Supp. 2d 612 (W.D. Ky. 2006). The District Court, in an Order issued March 31, 2006, ruled in favor of EPA and the Commonwealth and upheld the antidegradation implementation regulation, 401 KAR 5:030. An appeal to the United States Sixth Circuit Court of Appeals followed. *Kentucky Waterways Alliance et al v. Stephen L. Johnson et al*; 540 F. 3d 466 (6th Cir. 2008).⁷

The U.S. Sixth Circuit Court of Appeals, in an Order issued September 3, 2008, upheld those parts of the Commonwealth's antidegradation regulation (401 KAR 5:030 re-codified as 401 KAR 10:030)⁸ that pertained to selection of waters that were afforded Tier II protection and remanded the parts of the regulation that pertained to six categorical exceptions of certain types of discharges from Tier II review. This decision was not appealed and is now final. The six exceptions remanded by the court were as follows:

1. Any expanded discharge under a renewed or modified KPDES permit, so long as the expansion does not increase pollutant loading by 20% or more;
2. Industrial discharges if the pollutants are discharged at less than half the concentration authorized by a normal KPDES water permit;
3. Domestic discharges that limit seven pollutants below certain targets – for example, residual chlorine to “no greater than 0.010 milligrams per liter”;
4. Discharges under storm water general permits;
5. Discharges from concentrated animal feeding operation (“CAFOs”);
6. Discharges from coal-mining operations.

⁷ Plaintiffs-Appellants include: Kentucky Waterways Alliance, Sierra Club Cumberland Chapter, Kentuckians for the Commonwealth, and Floyds Fork Environmental Association; Defendant –Appellee include: Stephen L. Johnson, Administrator US EPA; Intervening Defendants – Appellees include: Commonwealth of Kentucky, Kentucky Coal Association, Associated Industries of Kentucky, Kentucky Chamber of Commerce, and Kentucky League of Cities.

⁸ References to 401 KAR 10:030 and 401 KAR 5:030 are interchangeable throughout this document and are viewed as one in the same.

Exceptions 1 through 5 above were remanded by the Court on a finding that EPA did not have adequate information to determine that the exempted activities would not create more than *de minimis* degradation. The sixth exception, for discharges from coal mining operations, was remanded because the regulation was at variance with the Cabinet's procedures for administering the antidegradation review and the Court determined that EPA had relied on "unenforceable commitments" in the approval of this exception.

In resolving the Court's remand, the Cabinet has removed all six exceptions listed above from 401 KAR 10:030 and now requires all of those formerly excepted categories of discharges to satisfy antidegradation requirements as a part of the application and permitting process. As such, the Cabinet believes that the Court's remand is resolved.

Working with a stakeholder workgroup, the Cabinet amended the antidegradation policy implementation methodology regulation, 401 KAR 10:030, to contain three exceptions that were determined to be consistent with the 6th Circuit Court's remand:

1. The renewal of a KPDES permit that does not authorize pollutant loading to the receiving stream in excess of that previously authorized;
2. An increase in pollutant loading within the limits previously approved by the KPDES permit; and
3. A new or expanded discharge that the applicant demonstrates shall not consume more than ten (10) percent of the available assimilative capacity of the receiving stream outside of a designated mixing zone or zone of initial dilution for each new or increased pollutant in the discharge.

These three exceptions satisfy what the Court deems "the legally relevant inquiry . . . whether Kentucky's Tier-II-review exemptions together permit significant degradation."⁹ The first two exceptions do not authorize any new pollutant discharge beyond that previously authorized and, thus, the Cabinet believes cannot constitute additional degradation. The third exception is consistent with 40 CFR 131.12, which authorizes *de minimis* degradation. As will be discussed later in this document, it is generally accepted that a less than ten percent consumption of the available assimilative capacity is considered a *de minimis* lowering of water quality. Taken collectively, these three exceptions therefore do not constitute a significant lowering of water quality.

The Cabinet also identified four categories of discharges for which antidegradation procedures will be addressed in the permits themselves or for which antidegradation requirements are satisfied by alternative protective processes. These four categories of discharges include:

1. Discharges permitted under general permits;
2. Discharges occurring under the approval of a regional wastewater facility plan;
3. New or expanded discharges associated with a project identified in the Kentucky Transportation Cabinet's six-year road plan; and

⁹ *Kentucky Waterways Alliance et al v. Stephen L. Johnson et al*; 540 F. 3d 466 (6th Cir. 2008), page 22.

4. An individual MS4¹⁰ permit that incorporates provisions that the permit holder address antidegradation considerations or that the permit includes practices and procedures to prevent lowering of water quality from new or expanded discharges from the MS4.

In regard to discharges authorized under general permits, the Cabinet has determined that the antidegradation requirements can be appropriately addressed in the requirements and procedures identified in general permits. With respect to discharges from publically owned wastewater treatment facilities subject to the regional facility planning process, the Cabinet retained this provision in the regulation. As has been previously approved by EPA, this alternative planning and evaluation process satisfies the applicable antidegradation requirements. Similarly, the Cabinet's regulation utilizes the alternative planning and evaluation process for projects conducted as part of the Transportation Cabinet's six-year road plan to satisfy applicable antidegradation requirements. Finally, the Cabinet determined that for new or expanded discharges from MS4 systems covered under an individual permit (currently Louisville and Lexington), the applicable antidegradation requirements can be appropriately addressed by the requirements of the MS4 permit. The Cabinet concluded that the implementation procedures identified in 401 KAR 10:030 for these four categories of discharges satisfy applicable antidegradation requirements.

CONVENING A WORKGROUP

Following the decision of the 6th Circuit and after consulting with EPA, the Cabinet convened a workgroup consisting of the parties involved in the antidegradation litigation and other interested parties to resolve the court's remand.¹¹ (For selected emails to the workgroup and a list of workgroup participants, see **Appendices A and B**.)

In the initial meeting, October 29, 2008, the Cabinet presented several options for moving forward, including:

1. The Cabinet could attempt to supplement the "record" within the 60 days following the remand with additional justification in effort to support the existing regulation and resolve the remanded portions of 401 KAR 10:030.
2. The Cabinet could move forward with the existing triennial review promulgation process and work on remanded issues in 401 KAR 10:030 with the plan to open that regulation after EPA made its formal response to the Court in accordance with the remand.
3. The Cabinet could develop revisions to 401 KAR 10:030 to address the remand through the current triennial review package.
4. The Cabinet could allow EPA to issue a regulation for Kentucky in the Federal Register.

The consensus of the workgroup was to develop revisions to the regulation to address the remand through the triennial review regulation package that was already in progress.

EPA and the Cabinet agreed that EPA would allow the parties to attempt to reach resolution of the 6th Circuit Court remand without EPA's initial involvement. The workgroup formally met a

¹⁰ MS4 means "municipal separate storm sewer" as defined by 40 C.F.R. 122.26(b)(8).

¹¹ The first communication with the stakeholder group, with a list of recipients, is in Appendix A.

total of nine times from October 2008 through February 2009. Multiple smaller group meetings and discussions were held throughout the process as well. During the process, participants were invited to submit written comments (See **Appendix C**), many of which are included in the Commonwealth's submittal to LRC and EPA¹².

The primary purpose of the revisions to 401 KAR 10:030 are to address the remand, which was clearly noted and understood by the Cabinet, members of the workgroup, and EPA. In addition, the workgroup agreed to consider additional revisions to the antidegradation implementation methodology regulation where reasonable agreement could be reached without significant contention. Consequently, in addition to the regulation resolving the remand issues, the regulation also contains some limited revisions outside the remanded exceptions to antidegradation review. These changes were identified by the workgroup as points of compromise that aided the resolution of the remanded issues and strengthened Kentucky's overall antidegradation program. With respect to other issues raised by stakeholders on which agreement was not reached, the Cabinet will retain the workgroup comments in order to help inform the next triennial review.

DETAILED REGULATION REVIEW

Summary of Regulation Format

The Cabinet provides the following for guidance in reading the regulation. The formatting of Kentucky's administrative regulations is prescribed by KRS 13A.220. Each section begins with the word "Section", followed by a number. Subsections are subordinate to sections and are designated by a number in parentheses. Paragraphs are subordinate to subsections and are designated by lower case letters in parentheses (e.g. (a), (b), (c), etc.). Subparagraphs are designated by a number, followed by a period (e.g., 1., 2., etc.). Clauses are designated by lower case letters of the alphabet, followed by a period (e.g., a., b., c., etc.). Subclauses are designated by lower case Roman numerals in parentheses (e.g., (i), (ii), (iii), etc.).

401 KAR 10:030, Antidegradation policy implementation methodology, is organized into three Sections. The first section, "Categorization and Implementation," establishes categorization criteria and implementation procedures for four categories of waters: Outstanding National Resource Waters; Exceptional Waters; High Quality Waters; and Impaired Waters. The second section, "Procedures for Recategorizing Water," establishes the methodology for a recategorization of water, whether by the Cabinet or outside party. Finally, the third section "Incorporation by Reference," lists the materials referenced in the administrative regulation and informs the reader of how to obtain a copy of those materials. The amendments to the regulation are primarily to Section 1, subsection (3), the implementation of antidegradation procedures for high quality waters.

¹² Appendix C

Section 1(1), Relating to Outstanding National Resource Waters

Table 1 in this subsection lists the waters that are categorized as outstanding national resource water (ONRW). Paragraph, (a), following Table 1, establishes the categorization criteria for ONRWs. There are no changes from the previously effective regulation. Additionally, in paragraph (b) of this subsection, there are no changes to the implementation procedures for ONRWs. This subsection of the regulation was not subject to the 6th Circuit Court's remand and was previously approved by EPA.

Section 1(2), Relating to Exceptional Waters

This subsection establishing the categorization criteria and implementation procedure for exceptional waters mirrors the formatting of the subsection relating to ONRWs. The subsection begins by listing exceptional waters in Table 2. Following Table 2, paragraph (a) establishes the categorization criteria for exceptional waters. There are no changes to paragraph (a). Any regulatory requirement applicable to these waters pursuant to a related regulation will remain applicable. The categorization criteria for exceptional waters were not subject to the 6th Circuit Court's remand and were previously approved by EPA.

In paragraph (b) of subsection (2), the Cabinet established the antidegradation implementation procedures to be identical for exceptional and high quality waters. Instead of providing a separate narrative for the implementation procedures, the regulation simply directs the reader to follow the same procedures established in Section 1(3)(b), the implementation procedures for high quality waters. The procedures for exceptional and high quality waters in the currently effective regulation are similar, and the slight differences have created more confusion than clarity. The Cabinet believes that using the same implementation procedures for high quality waters and exceptional waters will clarify expectations for potential discharges and create a more uniform standard of review to ensure that antidegradation requirements are satisfied.

Section 1(3), Relating to High Quality Waters

Subsection (3) of Section 1 establishes the categorization criteria and implementation procedures for high quality waters. High quality waters is the default category for waters of the Commonwealth. If no assessment of the waterbody has been conducted, it is assumed or defaulted to be meeting designated uses and is categorized as high quality water. For that reason, there is no table listing the waters for this category in the regulation. Currently, approximately ninety (90) percent of the waters of the Commonwealth are categorized as high quality and are therefore, subject to the antidegradation implementation procedures established in paragraph (b) of this subsection.

There are no changes to the categorization criteria for high quality waters. Any regulatory requirement applicable to these waters pursuant to a related regulation will remain applicable. The requirements in this subsection of the regulation were not subject to the 6th Circuit Court's remand and were previously approved by EPA.

Implementation Procedure

Paragraph (b) of subsection (3) opens by providing general guidance regarding antidegradation implementation procedure for high quality waters, which also applies to exceptional waters. The Cabinet maintains a provision that states, “Existing in-stream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.” This provision establishes that any exceptions to antidegradation review will not result in a degradation of the exceptional or high quality water that would degrade it beyond its current level of water quality. The requirements in this subsection of the regulation were not subject to the 6th Circuit Court’s remand and were previously approved by EPA.

Exceptions to Antidegradation Review

The 6th Circuit remanded the six exceptions to antidegradation procedures because the court was unable to establish that those exceptions, taken together, would result in only an “insignificant” degrading of Kentucky’s waters. Those six exceptions include:

1. An expanded discharge of less than twenty percent of the existing pollutant loading,
2. Discharges that are less than half the concentration normally authorized through a KPDES¹³ permit,
3. Domestic discharges with specific limits,
4. Discharges under storm water general permits,
5. Discharges from CAFOs¹⁴, and
6. Discharges pursuant to a coal general permit.

In resolving the Court’s remand, the Cabinet has removed all six exceptions listed above from 401 KAR 10:030 and now requires all of those formerly excepted discharges to satisfy the specified antidegradation requirements as a part of the application and permitting process. As such, the Cabinet believes that the Court’s remand is resolved with this promulgation.

After further evaluation of the matter, the agency determined that three exceptions were more appropriately identified in accordance with the remand. These three are:

1. The renewal of a KPDES permit that does not authorize pollutant loading to the receiving stream in excess of that previously authorized;
2. An increase in pollutant loading within the limits previously approved by the KPDES permit; and
3. A new or expanded discharge that the applicant demonstrates shall not consume more than ten (10) percent of the available assimilative capacity of the receiving stream outside of a designated mixing zone or zone of initial dilution for each new or increased pollutant in the discharge.

¹³ Kentucky Pollutant Discharge Elimination Program; these permits are issued pursuant to 401 KAR Chapter 5.

¹⁴ CAFOs are Concentrated Animal Feeding Operations. A definition is provided in 40 C.F.R. 122.23(2).

These first two exceptions to antidegradation policy are not actually exceptions, in that the discharges covered are neither new nor expanded in terms of the existing permitted limits. However, there was some ambiguity in the application of the implementation procedures and these two exceptions are meant to clarify how the Cabinet will treat these discharges.

Item 1 above establishes that a renewal of a KPDES permit that does not authorize pollutant loading in excess of that previously authorized will not necessitate further antidegradation review. Item 2 establishes that increases in loading, potentially within the existing term of the permit, will not require further antidegradation review if the increase is within limits that have been previously approved in the permit. Because those activities would not require a revision of the permit, or, if the permit were renewed, would not change the established limits, those activities are not considered to have a significant impact on current water quality. In summary, since the first two exceptions do not authorize any new pollutant discharge beyond that previously authorized, the Cabinet believes these two exceptions cannot constitute additional degradation.

The only true exception in the regulation is the third exception which establishes a *de minimis* threshold, consisting of a discharge that will not consume more than ten percent of assimilative capacity of the receiving stream outside a designated mixing zone or zone of initial dilution. The court's decision upheld the Cabinet's authority to allow for *de minimis* exemptions to antidegradation implementation pursuant to 40 CFR 131.12. While there is no definitive *de minimis* threshold established by the courts or EPA, ten percent is generally regarded as acceptable by both the court and EPA. In fact, EPA previously approved the Tennessee antidegradation provision regarding *de minimis* that is similar to Kentucky's regulation. This revises the threshold of twenty percent assimilative capacity or half the effluent limits otherwise permissible under a KPDES permit. Because this is the only remaining exception to antidegradation review, the Cabinet has determined that this satisfies the question raised by the 6th Circuit Court of Appeals of "whether Kentucky's Tier-II-review exemptions together permit significant degradation."

To evaluate the potential cumulative impact of these individual (*de minimis*) discharges to a waterbody so as to ensure that they shall not consume more than ten percent of the available assimilative capacity of the receiving stream, it is necessary to understand the technical aspects of this process. First, the applicant must demonstrate that the discharge will individually comply with this regulatory provision. Second, in order to make this demonstration, the applicant must evaluate the receiving stream to establish a baseline of existing water quality. Third, the applicant and the agency must determine whether the proposed discharge is *de minimis*.

In order to make this determination, it is necessary to understand what is meant by "available assimilative capacity" or AAC. The AAC is the positive increment of water quality that exists between the existing water quality and the water quality standard level. Assuming the existing water quality is better quality than the water quality standard level, it is that "quality of waters that exceed levels necessary to support ...that quality shall be maintained and protected, unless ..." that is identified in 40 CFR 131.12(a)(2). It is this "quality of water that exceeds levels necessary" for which the *de minimis* exception is intended to be utilized, provided it does not consume more than ten percent of the available assimilative capacity of the receiving stream.

In terms of a mathematical formula:

- a) $AAC = (WQS - EWQ)$
- b) $D = 0.1(AAC)$
- c) $ADL \leq (EWQ + D)$

Where: **AAC** is available assimilative capacity;
 WQS is the water quality standard level;
 EWQ is the existing water quality level;
 D is the *de minimis* level; and
 ADL is the allowable discharge level

In general, given the above, the better the existing water quality, the larger the potential available assimilative capacity (AAC), but the lower the permitted discharge level authorized can be. Conversely, the closer the existing water quality level is to the water quality standard level, the less the AAC is, but the closer the permitted discharge level to the water quality standard level can be authorized.

In addition, it is also understood that this approach to permitting *de minimis* discharges contains an inherent cumulative impact evaluation. Cumulatively, regardless of the number of *de minimis* discharges into a water body, the AAC must be maintained for this category of collective *de minimis* discharges. Consequently, the potential cumulative impact of this category of individual (*de minimis*) discharges shall not consume more than ten percent of the available assimilative capacity of the receiving stream and, therefore, will not constitute a significant lowering of water quality. In summary, neither an individual *de minimis* discharge nor a collection of individual *de minimis* discharges to a water body could cumulatively exceed more than ten percent of the available assimilative capacity of the receiving water body.

Special Categories of Discharges

The Cabinet also identifies four categories of discharges for which antidegradation procedures will be addressed in the permits themselves, or for which antidegradation requirements are satisfied by alternative protective processes. These four categories of discharges include:

1. Discharges permitted under general permits;
2. Discharges occurring under the approval of a regional wastewater facility plan;
3. New or expanded discharges associated with a project identified in the Kentucky Transportation Cabinet's six-year road plan; and
4. An individual MS4 permit that incorporates provisions that the permit holder address antidegradation considerations or that the permit includes practices and procedures to prevent lowering of water quality from new or expanded discharges from the MS4.

In regard to discharges authorized under general permits, the Cabinet has determined that the antidegradation requirements can be appropriately addressed in the requirements and procedures identified in general permits. General KPDES permits are issued pursuant to 401 KAR 5:050

through 5:080¹⁵ and with the requirements established in 40 C.F.R. 122.28. Eligible activities are limited to a specific geographic area or category of discharges and must comply with the requirements established in the general permit. General KPDES permits can satisfy antidegradation requirements in the permit itself, as EPA has recognized in the issuance of general permits under its authority. The Fact Sheet, issued with each permit, describes how the permitted activities will comply with antidegradation requirements (socioeconomic demonstration and alternatives analysis) and the public will be notified of any activity granted coverage under the permit. If, based on review, the Cabinet determines that additional controls and requirements beyond those in the general permit are needed to meet antidegradation requirements, the applicant shall be required to obtain an individual permit. Additionally, the Cabinet may also require that the proposed discharge obtain an individual permit, if necessary to protect a high quality or exceptional water. A list of existing Kentucky general permits is provided in **Appendix D**.

With respect to discharges from publically owned wastewater treatment facilities subject to the regional facility planning process, the Cabinet retained the existing provision in the regulation. As has been previously approved by EPA (See **Appendix E**), this alternative planning and evaluation process satisfies the applicable antidegradation requirements. Specifically, regional facility plans approved pursuant to 401 KAR 5:006 satisfy the antidegradation requirements for new and expanded discharges from publicly-owned treatment works (POTWs). 401 KAR 5:006 “Wastewater planning requirements for regional areas” incorporates comparable aspects of the alternative analysis and socioeconomic review otherwise required for antidegradation procedures. This interpretation of 401 KAR 5:006 was upheld by the U.S. District Court, which found that a POTW subject to a regional plan satisfies the Tier II antidegradation analysis. The issue was not raised as part of the appeal to the Sixth Circuit and is therefore not a subject of the court’s remand. The provision of the regulation that holds that a regional facility planning process satisfies the antidegradation procedures has been effective since EPA’s last approval and is not a change in implementation procedure.

The Cabinet similarly proposes to use the alternative planning and evaluation process for projects conducted as part of the Transportation Cabinet’s Six Year Road Plan¹⁶ (SYP)¹⁷ to satisfy applicable antidegradation requirements. A new or expanded discharge associated with a project identified in the SYP satisfies antidegradation requirements through the Transportation Cabinet’s planning process and best management practices. The discussion below address how the SYP addresses the following four antidegradation review requirements of 40 CFR 131.12(a)(2) that must take place before any lowering of water quality occurs:

1. A finding that it is necessary to accommodate important economical or social development in the area in which the waters are located.
2. Full satisfaction of all intergovernmental coordination and public participation provision.
3. Assurance that the highest statutory and regulatory requirements for point sources, including new source performance standards, and best management practices for nonpoint source pollutant controls are achieved.

¹⁵ For a list of currently active general permit types, please see Appendix D.

¹⁶ Established in KRS 176.430

¹⁷ The 2006-2012 plan can be accessed at <<http://transportation.ky.gov/progmgmt/06syp.html>>

4. Protection of existing uses.

The Cabinet believes that, because SYP projects have been identified by the highest governing legislative body in the Commonwealth, those projects will best serve to accommodate important social and economic development for its citizens. The Kentucky Transportation Cabinet (KYTC) is responsible for overseeing the development and maintenance of Kentucky's Transportation system using the SYP, which is approved by the Kentucky State Legislature. The transportation system and SYP projects improve safety, reduce congestion, reduce travel time, improve quality of life, and promote economic development. The socioeconomic benefits that result from creating and maintaining an efficient highway system, through execution of the SYP, are critical to the social and economic viability of the communities in which projects are developed and completed. Resulting impacts to waters, primarily temporary and construction-related, are avoided where possible, and are minimized by following permit requirements and standard practices adopted by the KYTC. These impacts are considered during the planning and decision-making process of the KYTC in choosing the appropriate projects for the SYP.

The Transportation Cabinet's SYP includes rigorous intergovernmental coordination and public participation when selecting road projects, satisfying the second element of antidegradation review established in 40 CFR 131.12(a)(2)¹⁸. Prospective projects originate from several sources, including local Area Development Districts, which represent the interests of local communities; Metropolitan Planning Organizations, which represent the interests of the urbanized areas of the state; and state legislators representing the needs of their constituents. KYTC engages the public in a manner that is compliant with both Federal Law (23 CFR 450.324) and KYTC's public involvement policy on all projects in the SYP. In the policy document "Interested Parties, Public Involvement, and Consultation Process"¹⁹, KYTC describes its process that public involvement should be early and continuous. The document further states that, "it is essential to understand the community's values in order to avoid, minimize, and mitigate impacts as well as to narrow the range of alternatives." The public involvement plan varies with the size, scale, and complexity of the project. The project-specific plan is designed to engage the public in a manner that is commensurate with the project's environmental, social, and economic impacts.

KYTC routinely conducts public meetings to obtain input from residents, businesses, and others who would be served or affected by the construction of a highway project. Other methods for public involvement and input include newspaper articles, mailings, newsletters, and project websites. For smaller projects that affect localized areas, public involvement may be more targeted toward the affected population in the project vicinity. The input received through this public involvement process is taken into consideration during the design of the highway. Concerns expressed by the public may be in any of several areas including impacts to water quality, endangered species, air quality, highway noise, and historic resources among others.

KYTC also coordinates with numerous state and federal governmental agencies during the project development process regardless of the scale of the project, typically including the

¹⁸ Full satisfaction of all intergovernmental coordination and public participation provision.

¹⁹ This policy document may be accessed at <
http://transportation.ky.gov/progmgmt/web_site/misc/public_part.pdf>

Kentucky Division of Water, the Kentucky Heritage Council, the U.S. Fish and Wildlife Service, the Kentucky Department of Fish and Wildlife Resources, and the U.S. Army Corps of Engineers. In addition to the public participation activities undertaken by KYTC, several of these agencies, especially those that issue permits for the project, also have public involvement procedures for soliciting public input on their actions. KYTC considers all input received from this intergovernmental coordination, and uses this information to guide decision-making.

KYTC utilizes numerous methods to assure that the highest regulatory and statutory requirements are achieved, which satisfies the third element of antidegradation listed in 40 CFR 131.12(a)(2)²⁰. The highway design process considers input from the regulatory agencies to avoid and minimize environmental impacts and assure that environmental compliance is achieved. KYTC's Division of Environmental Analysis consists of engineers, geologists, biologists, historians, and environmental professionals whose mission it is to maintain environmental compliance for all KYTC projects and facilities. KYTC has incorporated within the Standard Specifications for Road and Bridge Construction (Specifications)²¹, sections that are dedicated to environmental compliance. Section 212 (Erosion Control) outlines specific requirements that must be followed to control sediment and erosion at a highway construction site. Section 213 (Water Pollution Control) outlines numerous measures that must be taken during construction to minimize pollution to the waters of the Commonwealth. KYTC has also developed a policy that goes beyond the Standard Specifications and provides additional protections for areas with sensitive waters or resources. This policy is titled "Policy for Karst and Sensitive Resources"²². The policy requires additional post-construction BMPs to be implemented to protect sensitive water quality and aquatic resources, including High Quality waters. In addition, these KYTC specifications also require good house-keeping practices to be maintained during roadway construction to avoid impacts to water resources.

KYTC is also required to comply with numerous state and federal environmental regulations, most notably individual and general NPDES permit requirements for construction and post-construction maintenance of infrastructure, 404 permits and 401 water quality certification, and state flood plain construction permits. In areas of high quality water, additional requirements are incorporated in the planning process to ensure compliance with avoidance and minimization of impact from transportation construction and infrastructure maintenance activities. The U.S. Fish and Wildlife Service also requires that KYTC take extraordinary measures to protect aquatic endangered species by protecting water quality in those sensitive areas.

KYTC utilizes various methods to protect the existing uses of the Commonwealth High Quality waters. The initial method employed in this regard is the alternatives analysis conducted during highway design. During the design process several alternatives are evaluated, including the "no-build" alternate to determine respective impacts on the natural environment. This analysis commonly leads to selection of a least damaging alternative or inclusion of minimization measures and special design elements to assure water quality is maintained. Existing uses are

²⁰ Assurance that the highest statutory and regulatory requirements for point sources, including new source performance standards, and best management practices for nonpoint source pollutant controls are achieved.

²¹ The 2008 Edition maybe accessed at <<http://transportation.ky.gov/construction/spec/spec08.htm>>

²² The policy may be accessed at
<<http://transportation.ky.gov/design/memos/2005%20Design%20Memo%2012.pdf>>

also protected by the KYTC specification requirements for installation of erosion and sediment control, proper maintenance of the construction site including waste and debris handling and disposal, hazardous materials control plans, etc., as well as proper post-construction design and maintenance. As a means of better assuring protection of existing water quality, KYTC amended its specifications in 2006 to require its contractors to attain certification of the contractor's proficiency and understanding of sediment control techniques and issues. KYTC requires that each contractor employ a person certified as a Kentucky Erosion Prevention and Sediment Control (KEPSC) inspector. KYTC also assigns a Resident Engineer to serve as the departmental on-site representative whose responsibility it is to assure that the project is constructed in accordance with the plans and specifications, including the erosion control plan. This on-site presence has demonstrated itself to be decisively successful to KYTC's assurance that proper protective measures are being used to protect existing water quality. Failure of a contractor to comply with plans and specifications results in the assessment of liquidated damages (penalties) against the contractor and withholding of payment.

Finally, the Cabinet determined that for a new or expanded discharge from MS4 systems covered under an individual permit (currently Louisville and Lexington), the applicable antidegradation requirements are appropriately addressed by the requirements of the MS4 permit itself. The Cabinet determined that new or expanded discharges to high-quality or exceptional waters from an MS4 satisfy the antidegradation implementation requirements if:

1. The MS4 permit incorporates a provision that requires the permit holder to address antidegradation requirements for a new or expanded discharge, or
2. The permit includes practices and procedures to control discharges from new or expanded municipal outfalls that comply with antidegradation requirements.

Some stakeholders in the workgroup recommended that the Cabinet to wholly exempt discharges associated with individual MS4 permits from antidegradation review. However, the Cabinet believes it is appropriate to address antidegradation implementation for these activities through the individual MS4 permit program. New or expanded discharges to high-quality or exceptional waters from MS4s are unique in that the discharging facility (the MS4 area) already largely exists and new or expanded discharges are redundantly controlled to prevent significant lowering of water quality by the Cabinet's stormwater construction permit (general or individual) and by the post-construction requirements within the MS4 permit. In large communities, new or expanded MS4 discharges are a common aspect of routine development and redevelopment activities that occur throughout the term of the permit. In addition, in some cases, new development and redevelopment may reduce storm water discharge impacts, depending upon the existing land use. Accordingly, with these considerations in mind, MS4 expansions are different from non-stormwater discharges and antidegradation review must consider these circumstances.

In order to satisfy antidegradation requirements for individual MS4's there are three primary options that exist:

1. The Cabinet could address antidegradation requirements for each new or expanded discharge within the MS4 permit at the time each discharge occurs,

2. The Cabinet could require as an MS4 permit condition that the MS4 develop a program to address antidegradation requirements for each new or expanded discharge at the time the discharge occurs during the permit term, or
3. The Cabinet could place conditions in the MS4 permit that address antidegradation requirements by including practices and procedures to control discharges for each new or expanded discharge at the time the discharge occurs during the permit term.

The first option above would require the Cabinet to address each new or expanded discharge within the MS4 area as it is proposed to occur. Given the geographical size and frequency of activities within the Louisville and Lexington areas, the Cabinet would be perpetually reviewing the MS4 permit without ever concluding a final issuance. This impractical aspect of the antidegradation program therefore necessitates that options 2 and 3 be the manner in which antidegradation review is satisfied or otherwise render the EPA individual MS4 permit program as useless, at least in regards to antidegradation.

The Cabinet addresses new or expanded stormwater discharges within an MS4 area via the stormwater construction permit and the post-construction requirements in the MS4 permit, which is more efficient than continuously modifying or conditioning the entire MS4 permit to accomplish the same control. Further, this potentially redundant review of new or expanded stormwater discharges within the MS4 area by both the Cabinet and the MS4 is recognized by EPA in 40 CFR 122.44(s) where it is anticipated that permitting authority can be delegated to the MS4 from the Cabinet as a “qualifying local program”. In light of these considerations, it is appropriate to conclude that permit conditions incorporated into the MS4 permit that either require the MS4 to develop a program or impose practices and procedures as a part of the permit itself is an acceptable method by which antidegradation requirements can be satisfied for individual MS4 permits.

As determined above, given that new or expanded MS4 outfalls may be added in a MS4 on a regular basis, it is appropriate to evaluate, as part of the permit review and issuance process, the suite of controls that would apply to ensure the permit requirements prevent significant lowering of water quality. Additionally, the permit may require a permitted municipality to develop a program for addressing antidegradation on a case-specific or watershed basis, although this case-specific approach may be better suited for smaller communities that do not experience expansions on as frequent a basis as larger communities. Small MS4s have historically obtained general permit coverage, but are not precluded from obtaining an MS4 individual permit if the community or the cabinet believes it is more appropriate.

In summary, the Cabinet concludes that the implementation procedures identified in 401 KAR 10:030 for these four categories of discharges satisfy applicable antidegradation requirements in an appropriate manner.

Socioeconomic Demonstration and Alternatives Analysis

The regulation strengthens the existing requirements for the alternatives analysis and socioeconomic demonstration, found in subparagraph 3 of (3) (b). The parameters of the socioeconomic demonstration are more quantitative, such as impact on employment rates and

median household income, instead of the qualitative narrative required in the previously effective regulation. The alternatives analysis requires more detailed review and specifies alternatives that the applicant must consider. The revised form, which is required by clause c., is incorporated by reference in the regulation and as **Appendix G** in this document.

Decision Points and Documentation

The regulation requires that if the applicant fails to demonstrate the necessity and social or economic development importance for lowering water quality, the applicant will not receive a permit. However, the applicant has the option of revising that submission or demonstrating that the proposed discharge would be *de minimis*.

The regulation requires that if the applicant is able to successfully demonstrate the socioeconomic necessity for the discharge and completes an alternatives analysis, the applicant will be subject to the requirements of the KPDES program, which are found in 401 KAR 5:050 through 5:080.

In making a successful demonstration to the agency, it is understood that no technologically and economically feasible wastewater treatment alternative, beyond that being implemented, is available to the permit applicant that would minimize the lowering of water quality to a significant degree and that the lowering of water quality is necessary to accommodate important economic or social development in the area in which the water is located.

Section 1(4), Relating to Impaired Waters

The Cabinet amended the categorization criteria for impaired water. The amendment exempts waters that are listed only as mercury impaired for fish consumption from the impaired water category. There is currently a state-wide fish consumption advisory because of methyl mercury occurrence in fish tissue samples. Based on current 305(b) information, exempting waters that are impaired based on only fish tissue analysis for mercury will provide high quality water/antidegradation protection for seven stream segments constituting 158 stream miles, and six reservoirs constituting 53,738 acres. This provision will ensure that waters affected by the state-wide fish consumption advisory for mercury will provide protection of all applicable waters of the Commonwealth through the antidegradation program.

In addition to the above, after the Cabinet sent out a working draft of the revisions for this regulation, the suggestion was made to modify subparagraph 1 of paragraph (a), the categorization criteria for impaired waters. In response, the language in subparagraph 1, “Surface water categorized as impaired shall be assessed by the cabinet as not fully supporting any applicable designated uses.” was retained. The Cabinet recognizes that in using the phrase “applicable designated uses”, it is understood that the designated uses are those established in 40 C.F.R. 131.12(a)(2), as this is part of the cited authority for the promulgation of 401 KAR 10:030. This regulatory language was not subject to the 6th Circuit Court’s remand and was previously approved by EPA.

Section 2, Recategorization

Section 2 establishes the procedures for recategorizing water. There are no changes to this section and it was not a subject of the 6th Circuit remand and was previously approved by EPA.

Section 3, Material Incorporated by Reference

Section 3 lists the material incorporated by reference. The regulation strikes the incorporation of “Interim Economic Guidance for Water Quality Standards Workbook” and the “401 KAR 5:030 Antidegradation Implementation Procedures Process Flow Chart.” These reference materials are no longer used in the regulation. The “Interim Economic Guidance for Water Quality Standards Workbook” was previously referenced in the implementation procedures paragraph relating to exceptional waters, Section 1(2) (b). This reference is no longer necessary because the Cabinet deleted the existing implementation procedures and directs the reader to the implementation procedures established for high quality water in Section 1(3) (b). The flow chart is outdated and no longer reflects the Cabinet’s process for implementing antidegradation procedures, so it was removed from the material incorporated by reference.

PUBLIC PARTICIPATION

In making these amendments to 401 KAR 10:030, the Cabinet satisfied the public participation requirements of the triennial review process and of KRS 13A. The stakeholder workgroup consisted of a wide representation of affected interests and was convened to address the 6th Circuit Court’s remand in the ongoing water quality standards regulation promulgation process. The workgroup members operated with the understanding that this process satisfied the public participation process for regulatory development. To that end, the stakeholder workgroup meetings and the many related discussions satisfied the public participation process. In addition, public meetings with two legislative committees also constitute public participation opportunity. Finally, the Legislative Research Commission (LRC) and the legislature concluded that the Cabinet proceeded in this process in accordance with KRS 13A. In summary, the Cabinet believes that it has satisfied its obligations regarding public participation.

THE PROCESS OF PROMULGATING 401 KAR 10:030

The Kentucky antidegradation regulation 401 KAR 10:030 was promulgated effective July 30, 2009. Because the stakeholder group chose to address the 6th Circuit Court’s remand in the middle of the triennial review promulgation process of Kentucky’s water quality regulations, the Cabinet was working under statutory timeframes to complete the promulgation of the antidegradation regulation. Consequently, 401 KAR 10:030 was approved by the ARRS Subcommittee on June 9, 2009, and the Interim Joint Committee Natural Resources and the Environment on July 30, 2009.

The remaining amended Kentucky water quality standard regulations, including 401 KAR 10:026, 10:029, and 10:031, went into effect on July 6, 2009. These amended regulations were approved by the ARRS Subcommittee on May 12, 2009, and referred to the Interim Joint

Committee on Natural Resources and the Environment. The Interim Joint Committee did not meet in June, so the regulations were effective thirty days from their referral²³, July 6, 2009.

With specific respect to 401 KAR 10:030, the Cabinet filed the amended regulation with LRC on May 22, 2009, and the regulation, as mentioned previously, was heard before the June 9, 2009, ARRS meeting. These meetings were open to the public, and anyone who wished to comment had the opportunity to do so. Upon committee approval of the amended regulations, ARRS referred the package to a second committee, the Interim Joint Committee on Natural Resources and the Environment, which met on July 30. This meeting was also open to the public.

Although the amendments to 401 KAR 10:030 are not the result of universal agreement or consensus of the members of the stakeholder workgroup, the Cabinet believes that the regulations represent a satisfactory approach to resolving the issues presented in the 6th Circuit Court remand. The workgroup and the Cabinet acknowledge that antidegradation implementation is a complicated issue and that all related issues may not be fully resolved to the satisfaction of every workgroup member in the context of a single triennial review process. After all, the Cabinet has been working on this regulation in some manner since July 1995 when Kentucky first promulgated 401 KAR 5:030, antidegradation policy implementation methodology. In light of this, there will be opportunities to address other aspects of Kentucky's antidegradation implementation procedures as appropriate in future triennial reviews.

The Cabinet's primary objective was to resolve the United States 6th Circuit Court remand to EPA. The Cabinet believes that the changes to 401 KAR 10:030 successfully accomplish this objective of satisfying the remand by complying with the federal antidegradation requirements of 40 CFR 131.12. Accordingly, the Cabinet respectfully requests approval of 401 KAR 10:030 by EPA.

²³ KRS 13A.290 establishes that the subcommittee has 30 days to review referred administrative regulations.